

Amendments to the Drawings:

The attached sheet of drawings includes new Figure 10.

Attachment: New Sheet

REMARKS

In response to the office action mailed 4 August 2005, the specification has been amended to include Fig. 10 and language has been added to the specification to describe this figure. Support for this new figure is found in the original specification, for example, in paragraphs [0012] and [0017], therefore it is not new matter. Applicants also present the following amendments to the claims: claims 1 and 6 are amended, claim 5 is canceled, claims 28-57 are canceled, and claims 58-84 are new. Accordingly, claims 1-4, 6-27 and 58-84 are pending.

In the office action the Examiner objected to the drawings for not showing the subject matter of claims 5 and 6. Applicants have added Figure 10 and paragraphs [0028.1] and [0049.1] to accommodate the Examiner's suggestion to correct the drawings to more clearly depict the elements of these claims. As explained above, this addition is supported by the disclosure in paragraphs [0012] and [0017] and in originally filed claims 5 and 6, therefore no new matter is added by this amendment.

In the office action the Examiner objected to claims 5 and 6 as being dependent upon a rejected base claim. The examiner further stated that the claims would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicants traverse this objection. However, in order to expedite examination, Applicants abide by the Examiner's suggestion. Accordingly, Applicants have amended claim 1 to include all the features of claim 5 as suggested by the Examiner and have also canceled claim 5. Claim 1 now contains all the features of original claim 1 and claim 5. Claim 1, and claims 2-4 and 6-27, depending on claim 1, is now in condition for allowance.

In the office action the Examiner also rejected claims 1-4 and 7-27 under 35 U.S.C. §103(a). The rejection of claim 1 is now moot in light of the amendment made to claim 1. Claims 2-4 and 6-27 depend on amended claim 1 and, therefore, the rejection to these claims is also moot in light of the amendment to claim 1.

Applicants respectfully request allowance of claims 1-4 and 6-27.

Claims 28-57 have been canceled without prejudice to the subject matter therein. Applicants reserve the right to file a divisional application on the subject matter contained in these claims.

New claims 58-84 are presented herewith for examination. New, independent claim 58 comprises all the features of previously presented claim 1 and the added feature of “a plurality of piezoelectric elements of different geometric sizes arranged in a stack from largest to smallest.” New dependent claims 59-84 correspond to previously presented claims 1-27. Support for this feature is found throughout the specification, for example, in figures 7A, 7B and 7C and the associated text.

These new claims are not anticipated by or obvious in light of the cited prior art. The cited prior art does not teach or suggest “a plurality of piezoelectric elements of different geometric sizes arranged in a stack from largest to smallest.”

D’Antonio does not teach using more than one piezoelectric element and therefore does not and cannot teach or suggest stacking a plurality of piezoelectric elements.

Kolm discusses only two piezoelectric bonding elements. This reference, however, does not teach or suggest “a plurality of piezoelectric elements of different geometric sizes arranged in a stack from largest to smallest.” The piezoelectric elements shown in Fig. 1 and Fig. 4 are the same size. Thus, Kolm does not teach or suggest at least that the piezoelectric elements arranged in a stack from largest to smallest.

Although Mellon discusses a plurality of piezoelectric elements, the figures show that these piezoelectric elements are the same size. Therefore, Mellon does not teach or suggest at least piezoelectric elements “arranged in a stack from largest to smallest.”

Mehar does not teach multiple layers of piezoelectric material. Indeed, the piezoelectric elements are separate. The specification teaches that each piezoelectric element is positioned on a different side of an automobile (col. 2, line 58 – col. 3, line 10). These elements are not stacked. Therefore Mehar does not and cannot teach or suggest at least “a plurality of piezoelectric elements of different geometric sizes arranged in a stack from largest to smallest.”

Morrow also does not teach or suggest at least this feature. The piezoelectric elements shown in Fig. 4 of Morrow are the same size. Furthermore, there is no discussion of arranging the piezoelectric elements in a stack from largest to smallest.

Triplett also shows a plurality of piezoelectric elements. However, these elements are in an array around the interior of a tire rather than a stack. Thus, Triplett does not teach or suggest at least piezoelectric elements arranged in a stack.

Bohnert discusses single piezoelectric cylinders. The figures show single cylinders and the specification likewise only discusses single cylinders. Therefore, Bohnert does not teach or suggest at least a plurality of piezoelectric elements arranged in a stack.

Bloomer also teaches only a single piezoelectric element. The figures show only a single element and the specification refers to "a piezoelectric sensing element," singular. Thus Bloomer does not teach or suggest a plurality of piezoelectric elements.

Bundy also does not teach or suggest this feature. Bundy does not teach or suggest a plurality of piezoelectric elements. Rather Bundy teaches a single pyroelectric. Figure 4 and 5 show only a single crystal. Thus, Bundy does not teach or suggest at least "a plurality of piezoelectric elements arranged in a stack from largest to smallest."

The cited prior art does not teach or suggest at least the feature of "a plurality of piezoelectric arranged in a stack from largest to smallest." Independent claim 58, therefore, is not anticipated or rendered obvious by the cited prior art. Dependent claims 59-84 are likewise not anticipated or obvious in light of these references.

Applicants request consideration of new claims 58-84. In doing so, Applicants further submit that these claims are in condition for allowance and respectfully request allowance of these claims.

CONCLUSION

Applicants have properly stated, traversed, accommodated, or rendered moot each of the Examiner's grounds for rejection. Applicants submit that the present application is now in condition for allowance.

Applicants submit that no new fees are due with this response. However, if any extensions or fees are not accounted for, such extension is requested and the associated fee should be charged to the undersigned's deposit account, No. 50-3483.

If the Examiner has any questions or believes further discussion will aid examination and advance prosecution of the application, a telephone call to the undersigned is invited.

Respectfully submitted,

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